

Please amend the present application as follows:

**Specification**

The following is a marked-up version of the specification with the language that is underlined (“\_\_\_”) being added and the language that contains strikethrough (“—”) being deleted:

Page 8, paragraph 0028

As another example, if an insulator type of anti-fuse is used, up to the critical voltage  $V_C$ , current passes through the insulating barrier layer 124 of the metal-insulator-metal structure by electron tunneling, and the specific resistance of the element can be rather large, for example, on the order of ~~10<sup>7</sup>~~ 10<sup>7</sup>  $\Omega\text{-}\mu\text{m}^2$ . However, beyond the critical voltage  $V_C$ , the barrier breaks down due to metal migration through the insulator, and the specific resistance of the element can drop to below 100  $\Omega\text{-}\mu\text{m}^2$ . Similar current transport and breakdown mechanisms are operative in layered insulators and insulators containing conductive inclusions

Page 9, paragraph 0032

FIG. 4C discloses a preferred embodiment of memory element 102 including a non-uniform barrier layer 124 and an isolator element 101. As shown, the isolator element 101 is a schottky diode formed by the ~~bit line 106~~ word line 106 and preferably comprises platinum, and an adjacent silicon layer 125. Note, a non-uniform surface 123 is formed on the silicon layer 125 rather than a conductor layer, and the barrier layer 124 is disposed thereon.